

Commercial Solutions Division

# 3M™ Daylight Redirecting Film

## Product Bulletin

### 1. Product Description

3M™ Daylight Redirecting Film (DRF) is an abrasion resistant window film that, when applied to the interior window surface, redirects the visible light transmitted through the window toward the ceiling and deeper into the room. DRF has a frosted appearance of etched or sandblasted glass.

### 2. Application

3M™ Daylight Redirecting Film (DRF) is intended for use on the interior window surface. It is recommended to be installed at a minimum of 2 m above the floor. It should not be installed at or below eye level in order to avoid excessive glare due to the redirected sunlight. The film is directional and must be installed with the proper orientation as identified on the film core and/or liner. Automatic or manually operated shades should not overlay the DRF because they may interfere with the performance of the film and any lighting control solutions in use.

### 3. Typical properties

These are indicative values only, for 3M™ Daylight Redirecting Film products.

Incident Angle	Transmission (%)	Shallow Redirection (%)	Deep Redirection (%)	Diffused Downward (%)	Direct Light (%)
25	76	25.3	38.7	31.2	4.8
50	66	19.9	50.3	27.5	2.3
70	54	21.1	55.6	22.8	0.6

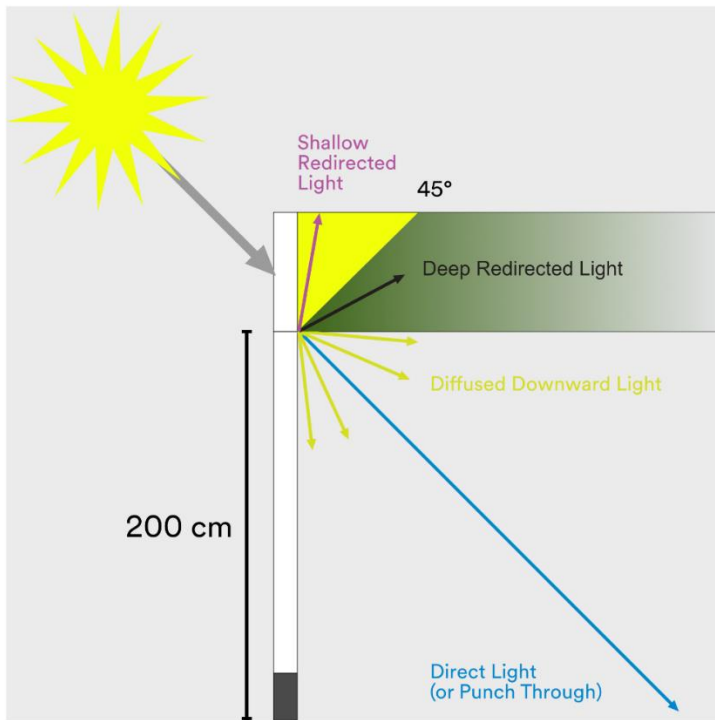


Figure 1

Shallow Redirected Light:	Light redirected upward close to the window.
Deep Redirected Light:	Light redirected deep into the building.
Diffused Downward Light:	Diffuse light which is redirected toward work surfaces further into the space.
Direct Light:	Light within 4° of the incident sun angle which can lead to glare or thermal discomfort.

## 4. User Information

### 4.1 Shelf Life and storage (prior to application)

Shelf life is 5 years from the manufacturing date. Material should be stored in its original packaging, laying in a horizontal orientation, away from direct sunlight. Heavy objects should not be placed on top of it to avoid damaging the product. Recommended storage conditions are +21°C and 40% – 50% relative humidity. Avoid extreme temperature ranges in storage.

The shelf life as defined above remains as indicative and maximum data, subject to many external and non-controllable factors. It may never be interpreted as warranty.

## 4.2 Application

These are indicative values for 3M™ Window Film products.

Recommended substrate	Flat glass (as defined in EN 15755-1)
Application method	Suitable for wet application or dry, semi-automatic lamination
Application temperature	From + 4°C to +45°C
Application guidelines	Precut the film to window size leaving sufficient gap (1 - 2 mm) to remove slip solution during installation. Edge seal as described below. Use water and slip solution to facilitate correct positioning of the film. Install film in the correct orientation. The printed line on the liner indicates the top position of the film. Cut a small notch in one of the upper corners to ensure correct orientation once the liner is removed. Squeegee DRF in the same way as safety films.
Edge sealing	The vertical, left and right edges must be sealed prior to installation. 3M 3950 edge sealer is recommended. Allow up to 5 minutes for sealant to dry before installing. Further information can be found in the installation bulletin for DRF.
Service temperature	From -40°C to +80°C
Drying time	DRF can take up to 80 days to reach final adhesion depending on prevailing conditions. Please refer to local instructions for details.

## 4.3 Maintenance and Cleaning

Use a cleaning agent designed for high quality glass surfaces. The cleaning agent must be wet and non-abrasive with a pH value between 6 and 8 (neither strongly acidic nor strongly alkaline). Synthetic sponges and soft cloths are recommended.

This bulletin provides technical information only.  
To request additional product information see address below.

## Important Notice

All questions of warranty and liability relating to this product are governed by the terms and conditions of the sale, subject, where applicable, to the prevailing law.

Before using, the user must determine the suitability of the product for its required or intended use, and the user assumes all risk and liability whatsoever in connection therewith.

Responsible for this technical bulletin:



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